

## **ABSTRACT OF THE DISCLOSURE**

Improvements are provided for a syringe-to-syringe mixing system to improve the mixing characteristics of the system. In one embodiment, a mixing apparatus includes opposite fittings for mounting to a pair of syringes. The mixing apparatus defines a fluid passageway therethrough and includes a flow modifying element disposed within the passageway. The flow modifying element is configured to increase the flow velocity, disrupt the fluid flow or introduce turbulence into the fluid flow between the two syringes. In another embodiment, a nozzle element is disposed within the tip of the syringe, the element configured to increase the fluid flow therethrough. The nozzle element can be a nozzle insert removably mounted within the tip, or an integrally formed nozzle within the tip.